

Amendment and Response under 37 C.F.R. 1.116

Applicant: Winthrop D. Childers

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Title: RAPID PHARMACEUTICAL COMPONENT SCREENING DEVICES AND METHODS

IN THE CLAIMS

Please cancel claims 2, 27, 29-30, and 35.

Please amend claims 1, 28, 36, 37, 40, 41, and 43 as follows:

1. (Currently Amended) An automated method for analyzing substances containing cellular material, the method comprising:

removably receiving at least one consumable cartridge containing at least one potential pharmaceutically active agent into a test apparatus, the test apparatus comprising at least one liquid ejection device including the at least one consumable cartridge and an electronically actuated drop-on-demand printhead acting in fluid communication and electronic communication with the at least one consumable cartridge;

activating the test apparatus having at least one liquid ejection device acting in cooperation with an electronically actuated printhead to dispense a first defined volume of the at least one potential pharmaceutically active agent from the drop-on-demand printhead of the at least one liquid ejection device, the volume containing at least one potential pharmaceutically active agent, the first defined volume dispensed into contact with at least one defined volume of a substance containing a target cellular material wherein the target cellular material is at least one of whole cells and or recognized cellular components from intact cells;

capturing and maintaining information, via a memory storage device of the at least one consumable cartridge, pertaining to at least one of a function of the at least one consumable cartridge and the at least one potential pharmaceutically active agent;

detecting in the at least one defined volume of the substance a pharmacological effect on the target cellular material triggered by introduction of the first defined volume of the at least one potential pharmaceutically active agent;

generating information indicative of the pharmacological effect of the at least one potential pharmaceutically active agent on the target cellular material; and

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